

What is claimed is:

1. A production process for a hydroxyalkyl (meth)acrylate, which comprises the step of carrying out a reaction between (meth)acrylic acid and an alkylene oxide in order to produce the hydroxyalkyl (meth)acrylate,

with the production process further comprising the steps of: recovering the unreacted (meth)acrylic acid by distillation of the resultant reaction liquid; and thereafter recycling the recovered unreacted (meth)acrylic acid as a raw material for the reaction.

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2. A production process according to claim 1, which further comprises the steps of: recovering the unreacted alkylene oxide together with the unreacted (meth)acrylic acid; and thereafter recycling them.

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3. A production process according to claim 1, which further comprises the steps of: separating the unreacted alkylene oxide from the reaction liquid in the first place; and thereafter recovering the unreacted (meth)acrylic acid by the distillation.

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4. A production process according to claim 1, wherein the

distillation is carried out under an operational pressure of 1 to 40 hPa.

5. A production process according to claim 1, wherein the distillation is carried out with a plate column and/or a packed column.

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6. A production process according to claim 1, wherein the distillation is carried out in the presence of polymerization inhibitors involving the joint use of at least one compound with an N-oxyl compound wherein the at least one compound is selected from the group consisting of phenol compounds, paraphenylenediamines, amine compounds, copper dialkydithiocarbamates and nitroso compounds.

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7. A production process according to claim 1, wherein the concentration of the (meth)acrylic acid in the reaction liquid is in the range of 0.1 to 20 weight %.

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